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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/083,366	02/27/2002	Tsung-Hsiung Wang	WANG3118/EM	5874
23364	7590	07/29/2004	EXAMINER	
BACON & THOMAS, PLLC 625 SLATERS LANE FOURTH FLOOR ALEXANDRIA, VA 22314			PADGETT, MARIANNE L	
			ART UNIT	PAPER NUMBER
			1762	

DATE MAILED: 07/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/083,366

Applicant(s)

Wong et al

Examiner

M.L. Palgett

Group Art Unit

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— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

☒ Responsive to communication(s) filed on 2/4/04

☒ This action is **FINAL**.

- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 25-39 is/are pending in the application.
- Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 25-39 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement

## Application Papers

- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☐ All ☐ Some\* ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
- ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_
- ☐ Interview Summary, PTO-413
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other \_\_\_\_\_

Office Action Summary

1. Claims 25-39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims' language is much improved, however considering the clearer phrasing causes a few questions on intended meaning. In claim 25, step (b), "field functional control" has no inherent or standard scientific meaning. In the former, "field" of what is not defined, nor does "functional" supply any necessary meaning, but everything can be said to have some kind of function. No formed definition of this phrase coined by applicant was found in the specification, and it is noted that new claim 29 that appears to sort of correspond to old claim 15, might be providing scope for this term, but has its own logic/grammar problems. In claim 29, line 2, "the homogeneous coating" is a noun or product, not an action, and would appear to correspond to "a conductive polymer film" of step (b) if taken literally. Would intended meaning for claim 29 correspond to --wherein the field in the field functional control of step (b) is selected from the group consisting of a microwave field, an electrical field, a magnetic field, a fluid force field or combinations thereof--?

In step (c) of claim 25, what "combination" means in the phrase "electromagnetic combination field" is not apparent, as it has no standard meaning in the art. What electromagnetic fields are being combined? Is this term intended in some way to be the combination of the two previously mentioned fields of step (c), "molecules structure ordered field control" and "self-stacking field control"? If so, it is not clear from the claim language, since neither of these two first mentioned fields have anything necessarily to do with electromagnetism. However, given the overall context, for examination purposes it will be considered the two claimed "field controls" are effects of an applied electromagnetic field, and lacking any further clear definition, any electromagnetic field may be employed, as long as it causes control of these properties, as well as the following "to maintain and to strengthen..." limitation. For 25

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(c), it is noted that claim 31 may shed some light on possible intentions of "combination". Clarity in the claims on these issues is desirable.

In claim 30, while not detrimental to understanding the meaning of the limitation in line 3, "is a containing electrical field..." is not idiomatic English nor correct grammar, so applicants might consider revising the phrasing. It is also noted, that as now phrased none of "a coating tool and coating control system" or "a coating thickness" have any necessary connection to the steps or coating of the independent claim.

2. Applicant's amendments have adequately clarified the independent claim to necessitate that the substrate is microwave treated before deposition of the conductor polymer, as well as to more clearly necessitate effects that result from the coating technique, such as that Burroughes et al (6,558,219) is no longer an appropriate reference, lacking the claimed microwave pre-treatment, and the consequent effects: As pointed out by applicants on page 8 of their February 4, 2004 response, the examples of 2-5 which compare with and without microwave plasma treatment, demonstrate the importance of this step.

3. The disclosure is objected to because of the following informalities: In reviewing the cited examples (pages 9-11), the examiner notes the presence of an unknown/unfamiliar unit abbreviation "i m" (i with an accent, space, m). Given the context, something to do with thickness might be intended, but is not clear to the examiner, and clarification (supported definition and/or supported amendment) is needed.

Also, some amendments of form might be considered, such as use of standard labeling of examples (comparative example for only prior art or examples not using the critical invention features). Presently, all deposition examples are labeled "compared example", both with and without plasma pretreatment, which may be misleading to the reader. Some revising for more idiomatic English, such as at the start of examples 2-5, might also improve readability of the specification.

Appropriate correction is required.

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4. Applicant's arguments filed 2/4/04 and discusses above have been fully considered but they are not persuasive. Applicant's arguments with respect to claims 25-39 have been considered but are moot in view of the new ground(s) of rejection.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marianne L. Padgett whose telephone number is (571) 272-1425. The examiner can normally be reached on Monday-Friday from about 8:30 a.m. to 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on (571) 272-1415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

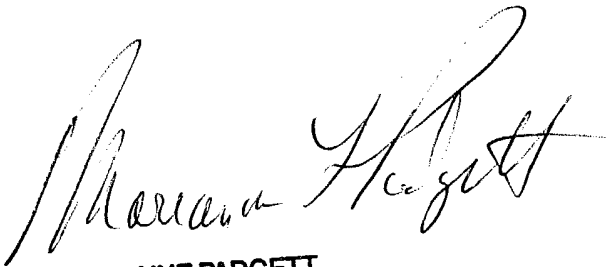
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M.L. Padgett/dh

June 30, 2004

July 27, 2004



**MARIANNE PADGETT**  
**PRIMARY EXAMINER**